Appl. No. 10/057,726 Amdt. dated April 30, 2004 Reply to Office Action of December 30, 2003

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

## **Listing of Claims:**

- 1-35. (Canceled)
- 35. (Currently amended) An isolated polynucleotide comprising a smooth muscle cell myosin heavy chain (SM-MHC) promoter/enhancer, wherein the enhancer comprises nucleotides 5638-5860 of SEQ ID NO:16 or nucleotides 6862-7100 of SEQ ID NO:17-the rat or human sequence depicted in Figure 18(b), and the promoter comprises a heterologous TATA box or transcription initiation site, and wherein the promoter/enhancer initiates expression in a smooth muscle cell *in vivo* when introduced into an animal.
- 36. (Previously presented) The polynucleotide of claim 35, wherein the promoter comprises a CArG1 and/or a CArG2 motif.
- 37. (Currently amended) The polynucleotide of claim 35, wherein the enhancer <del>promoter</del> is coupled to a minimal thymidine kinase (TK) promoter.
- 38. (Previously presented) The polynucleotide of claim 35, wherein the promoter is operably linked to a heterologous polynucleotide.
- 39. (Previously presented) The polynucleotide of claim 38, wherein the heterologous polynucleotide encodes a polypeptide.
- 40. (Currently amended) An isolated polynucleotide comprising a smooth muscle cell myosin heavy chain (SM-MHC) promoter/enhancer, wherein the promoter/enhancer sequence comprises SEQ ID NO:16 or SEQ ID NO:17, wherein:

Appl. No. 10/057,726 Amdt. dated April 30, 2004 Reply to Office Action of December 30, 2003

a CArG2 motif is mutated and the promoter is expressed in mesenteric artery, airway, stomach, intestine and bladder but not aorta, coronary artery or vena cava when introduced into an animal; or

the intronic CArG motif at positions 5815-5825 of SEQ ID NO:16 or 7046-7056 of SEQ ID NO:17 is mutated and the promoter is expressed in coronary artery, mesenteric artery, vena cava, airway, stomach, intestine and bladder but not aorta when introduced into an animal.

wherein a CArG2 or intronic CArG motif is mutated and wherein the promoter is expressed in a subset of smooth muscle cells *in vivo* when introduced into an animal.

- 41. (Currently amended) The polynucleotide of claim 40, wherein the promoter/enhancer comprises SEQ ID NO:16 and the CArG2 motif is mutated.
- 42. (Currently amended) The polynucleotide of claim 40, wherein the promoter/enhancer comprises SEQ ID NO:16 and the intronic CArG motif is mutated.
- 43. (Currently presented) The polynucleotide of claim 40 wherein the promoter is operably linked to a heterologous polynucleotide.
- 44. (Currently presented) The polynucleotide of claim 43 40, wherein the heterologous polynucleotide encodes a polypeptide.
- 45. (Currently amended) An isolated A genetically engineered cell comprising the polynucleotide of claim 35 or 40.
- 46. (Previously presented) A composition comprising the polynucleotide of claims 35 or 40 in a pharmaceutically acceptable carrier.
- 47. (Currently amended) An isolated polynucleotide comprising a smooth muscle cell myosin heavy chain (SM-MHC) promoter/enhancer, wherein the promoter/enhancer sequence comprises:

Appl. No. 10/057,726 Amdt. dated April 30, 2004 Reply to Office Action of December 30, 2003

nucleotides 1 to <u>9500</u> 6700 and 11,700 to 13,700 of SEQ ID NO:16 and does not comprise the intervening nucleotides <u>9501-11699 of SEQ ID NO:16</u>; or

nucleotides 1 to 6700 and 9,500 to 15,800 of SEQ ID NO:16 and does not comprise the intervening nucleotides 6701-9499 of SEQ ID NO:16; and

wherein the promoter/enhancer comprises a mutated or unmutated CArG2 or intronic CArG motif and the promoter/enhancer initiates expression in <u>pulmonary vascular and</u> airway a <u>subset of smooth muscle cells in vivo</u> when introduced into an animal.

- 48. (Currently amended) The isolated polynucleotide of claim 47, wherein the promoter/enhancer comprises nucleotides 1 to 9500 6700 and 11,700 to 13,700 of SEQ ID NO:16 and does not comprise the intervening nucleotides 9501-11699 of SEQ ID NO:16.
- 49. (Currently amended) The isolated polynucleotide of claim 47, wherein the promoter/enhancer comprises nucleotides 1 to 6700 and 9,500 to 15,800 of SEQ ID NO:16 and does not comprise the intervening nucleotides 6701-9499 of SEQ ID NO:16.
- 50. (Previously presented) The isolated polynucleotide of claim 47, wherein the promoter/enhancer initiates expression in gastrointestinal, airway, arteriolar, and bladder smooth muscle cells but does not initiate expression in vascular smooth muscle cells within large arteries.
- 51. (Previously presented) The isolated polynucleotide of claim 47, wherein the promoter/enhancer comprises a mutated CArG2 motif.
- 52. (Previously presented) The isolated polynucleotide of claim 47, wherein the promoter/enhancer comprises an unmutated CArG2 motif.
- 53. (Previously presented) The isolated polynucleotide of claim 47, wherein the promoter/enhancer comprises a mutated intronic CArG motif.
- 54. (Previously presented) The isolated polynucleotide of claim 47, wherein the promoter/enhancer comprises an unmutated intronic CArG motif.

Appl. No. 10/057,726 Amdt. dated April 30, 2004

Reply to Office Action of December 30, 2003

- 55. (Previously presented) The isolated polynucleotide of claim 53, wherein the promoter/enhancer initiates selective expression in vascular smooth muscle in arterioles and airway smooth muscle.
- 56. (Previously presented) The isolated polynucleotide of claim 51, wherein the promoter/enhancer initiates selective expression in gastrointestinal smooth muscle.
- 57. (Currently amended) An isolated A genetically engineered cell comprising the polynucleotide of claim 47.
- 58. (Previously presented) A composition comprising the polynucleotide of claim 47 in a pharmaceutically acceptable carrier.
- 59. (New) The polynucleotide of claim 35, wherein the enhancer comprises nucleotides 5638-5860 of SEQ ID NO:16.
- 60. (New) The polynucleotide of claim 35, wherein the enhancer comprises nucleotides 6862-7100 of SEQ ID NO:17.
- 61. (New) The polynucleotide of claim 40, wherein the promoter/enhancer comprises SEQ ID NO:17 and the CArG2 motif is mutated.
- 62. (New) The polynucleotide of claim 40, wherein the promoter/enhancer comprises SEQ ID NO:17 and the intronic CArG motif is mutated.
- 63. (New) An isolated polynucleotide comprising SEQ ID NO:17 operably linked to a heterologous polynucleotide.